

WHAT IS CLAIMED IS:

1. A power amplifier module comprising:
a DC current amplifier to detect a DC component of an input signal and to amplify the detected DC component of the input signal; and
an amplifier to which the current amplified by said DC current amplifier is supplied as an input current,
wherein said DC current amplifier is supplied with the input signal which changes in response to an input power level.
2. The power amplifier module as claimed in claim 1,
wherein said power amplifier module is arranged in such a manner that a power supply current is detected and amplified by the DC current amplifier, and
wherein said amplified power supply current is supplied to an input terminal of said amplifier.
3. The power amplifier module as claimed in claim 1,
wherein the amplifier and the DC current amplifier comprise a unit amplifier,
and
wherein said power amplifier module is comprised by connecting plural stages of said unit amplifiers.

4. The power amplifier module as claimed in claim 1,
wherein the input terminal of said amplifier is connected to an input matching circuit.

5. The power amplifier module as claimed in claim 4,
wherein an output terminal of said amplifier is connected to an output matching circuit.

6. The power amplifier module as claimed in claim 1,
wherein the input terminal of said amplifier is connected to an interstage matching circuit, and
wherein the interstage matching circuit is electrically connected to an input matching circuit.

7. The power amplifier module as claimed in claim 1,
wherein said amplifier includes a plurality of unit amplifiers electrically connected to each other, and
wherein each of said unit amplifiers is supplied with a current from said DC current amplifier.

8. The power amplifier module as claimed in claim 1,
wherein said amplifier and said DC current amplifier are comprised of bipolar transistors.

9. The power amplifier module as claimed in claim 8,
wherein the bipolar transistors comprising said amplifier are formed on a semiconductor chip in an integrated circuit form.

10. The power amplifier module as claimed in claim 8,
wherein the bipolar transistors comprising said amplifier are comprised of either GaAs-HBT or GaAs field-effect transistors, and
wherein said DC current amplifier is comprised of either a Si bipolar transistor or an Si field-effect transistor.

11. A power amplifier module comprising:
an amplifier using a field-effect transistor; and
a DC current amplifier,
wherein a gate voltage of said field-effect transistor is controlled by an output current of said DC current amplifier.

12. The power amplifier module as claimed in claim 11,
wherein said field-effect transistor is formed on a semiconductor chip in an integral circuit form.